

Essay good -

Examined by J. Moore

An Essay
on the

Phenomena of Labor

Respectfully submitted to the Faculty
of the

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By

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(11)

Phenomena of Labor.

Labor, What is it?

The term Labor is a small word, but it is the representative, or expression of a subject of great moment and magnitude. A subject that is of almost unsurpassing interest to the Physician. This Subject It is, around which, perhaps more than any other, have clustered deep anxiety, intense emotion, and earnest solicitude; and on the happy issue of which have been suspended great Domestic, Social and National Issues.

To watch over the process of Labor and bring it to a happy issue is assigned to the Physician; for which high trust and weighty responsibility he cannot be too well versed in this part of his profession.

But the question returns,
What is Labor, i.e., Natural Labor, Labor under ordinary circumstances?

May it not be defined as, The Efforts of the Gravid Uterus to Empty itself of its Contents? Which Contents may now be supposed to act there as would A foreign body?

Or may it be considered as the Efforts of the Gravid Uterus to return to its Non gravid State, by virtue of a Law naturally impressed upon

it, that on the 280 day of gestation it shall commence the process of involution, which involves in it the discharge of its contents?

I mentioned 280 days as the period at which the process of parturition commences, because this is the rule; not however as though it were absolute, for, as to other rules there are exceptions, so there ^{are} to this, such as that it may in some cases commence as early as the 250 day, and in others may go on to the 300 day. But these cases are not so numerous as to invalidate or even interfere with the rule.

Therefore I said this process might be but obedience to this Law.

But it is not important to

determine whether either of these alone, or both of them combined is that which brings about the commencement of Labor, i.e., whether it is induced by irritation or by the law of its organization; because the result is the same in either case, viz it is the effort to discharge the contents of the uterus, and then return to its normal state when not impregnated.

Labor although attended with the most exquisite and unutterable sufferings should not be regarded as a disease, or as the result of disease, for such it is not, it being only a healthy and Physiological process.

It is true that its present condition and that from which it

started and to which it is tending again are as widely different, almost, as it is possible to conceive; and the whole process of evolution and involution are not less wonderful. Indeed, no one not versed in these subjects could for a moment suppose it possible that by any healthy process the uterus when in one of these conditions could arrive at the other and then retrace its steps and return to its normal rest and size.

The differences are so great when examined in the two conditions, such for instance as its measurements and capacity, having in the first instance the dimensions $2\frac{1}{2}$ inches long, $1\frac{1}{4}$ inches wide and $\frac{3}{4}$ of an inch thick, through both its

walls, with a capacity, perhaps, equal
to holding an Almond Kernel; and
then when Gravid measuring 7 by 12
inches and capable of containing a
Fetus measuring say 20 inches, besides
its appendages, viz, The Membranes,
The Liquor Amnii and the Placenta.
Also its weight, at one time being $2\frac{1}{2}$ oz,
and at the other 1½ lbs; at one time
its blood vessels so fine as to be scarce-
ly appreciable, at the other to be
so increased in all their dimensions
that cases have occurred in which
a few moments have sufficed for them
to pour out the woman's life's blood.

For the sake of simplify-
ing this as much as possible it has
been divided into three stages.
I Dilatation. II Expulsion III Ef-

-ulsion of the secundines.

I Dilatation. And here I might premise that before this stage sets in there are manifested what Obstetricians denominate precursory signs. 1st. About two weeks before delivery, in others perhaps only four or five days, there occurs a subsiding or settling down of the womb and an apparent spreading out laterally of the abdomen, and the effect of ^{it} is to relieve the respiratory organs, and also the stomach from the great pressure that is made on them; so that greatly to the relief of the woman respiration and digestion are more easily and pleasantly performed.

To this however there succeeds another condition which becomes very annoying to

her, particularly if the head be the presenting part; the Uterus sinks somewhat into the pelvis and makes pressure on the pelvic viscera, giving an annoying sense of weight about the fundaments, pressure on the rectum and bladder causing straining at stool, ineffectual desire to urinate, and vesical tenesmus. Then oedema and varices of the lower extremities increase considerably, and owing to the same cause if they have ^{the} hemorrhoids they will become more voluminous and painful.

Thus step by step the term of Gestation arrives and Labor sets in or begins. And the genital organs which for some days have been more moist than usual now become very much more so, and are most thoroughly lubricated with

a glary mucus, which after a short time becomes streaked with blood, which by the sex is called "the show", which is considered as a sure sign of labor setting in. Now the pains which may have been felt occasionally during the past two weeks become frequent and acute, and during the period that each pain lasts the abdomen retracts and the womb hardens, and these pains although not so frequent in their recurrence as at a later stage of the labor, they appear from some cause or other to be less, bearable, and because of their peculiarity they are called "Grinders" or "Grinding pains." I would here digress to remark that if at this point the Physician arrives, it is his duty to give immediate attention to having the rectum & bladder

evacuated. Now the aforesaid pains continue to increase in severity and are mostly ushered in by a slight shivering, and while the pain lasts the pulse is hard, frequent and full, the countenance is flushed, the surface and tongue become dry and thirst prevails to a considerable extent; and during this process of dilatation nausea and vomiting not unfrequently come on. Now these pains are the result of the all important process which we have said is denominated, 'The first stage of Labor', that of preparing the passages for the foetus to pass through into the outer world, the obliteration of the Cervix and dilatation of the os Uteri; and although this process is slow, nothing can be performed until the os is dilated or dilatable.

The antagonism which has existed between the Fœtus and Cervix and os during the whole term of gestation is not overcome without a painful struggle, hence the resistance, until the contractions become so violent, that eventually the os begins to yield, and the pressure of the membranes into the os more deeply with each recurring pain, it becomes eventually fully dilated and the passage opened.

The vagina and Vulva have also now become measurably prepared for the part which they are to bear in this process, and the Uterus and Vagina together form a continuous canal.

Not infrequently the termination of this stage is indicated by violent shivering or general tremors, without any

sense of cold, and is sometimes spoken of by the patient herself as being a remarkable circumstance. This is by some supposed to be occasioned by the strong impression made upon the nervous system by parturition.

The average time in which labor is concluded is reckoned at a little more than four hours, but it is not unfrequently protracted to 20, 40, 50, 60, or even more hours. Nor is there, as a general rule, much danger to either the Mother or Child when the slowness is in this part of labor.

There are several circumstances or conditions set down as contributing to occasion delay in this stage. I shall name only a few. 1st. The cause of the tardiness of this process, maybe, and indeed often is

found to be the rigidity of the cervix and os Uteri; And when this is the case it requires great powers of endurance on the part of the woman, and great patience on the part of the Physician.

2nd. In other cases it may be owing to the deficiency or irregularity of the contractions of the Uterus.

3rd. I mention excessive distention of the Uterus, such as may occur in dropsy of the amnion. And Twin pregnancies are found to exercise the same kind of influence, viz. to protract the period in which dilatation should take place.

I might remark, that all things being equal, dilatation is most rapidly effected when the vertex presents, as it applies with greater directness and consequent effect to the cervix of the Uterus.

Under such circumstances the Physician and more especially the young practitioner may be urged by others and inclined himself to resort to some of the expedients laid down to try and influence the Uterus to more vigorous action; but he should yield to these importunities and impulses with the greatest caution, never allowing a sound discriminating judgement to be dethroned at the behest of mere sympathy or impatience, and most sacredly should he remember the injunction uttered by the worthy occupant of the Chair of Obstetrics of this College, "Never to give Secale Cornutum" in these circumstances, but to cheer the woman, support her strength, and on the Movements of Nature patiently to bair, bair, wait. As the rule, distillation will take place, or the parts will become distatable in due time

and with this the first stage of labor will have been completed. And here the 2nd. Stage of labor commences, viz. the Expulsion.

The pains occurring in the first stage although very severe are nevertheless quite different from those which occur in this the second stage, just as there is a difference in the end to be accomplished, by the one, the preparation of the parts, the other to propel the foetus through the passage thus prepared. The first occur at long intervals the latter at intervals diminishing in length until they become almost continuous; The first have not that great tenesmic power which are characteristic of the latter and which gives to them all their effectiveness in expelling the child.

Indeed the difference of which we speak is so marked that it is stated as a fact, that a Physician who is accustomed to close observation will be able, on entering the room of a parturient female, to form a tolerably correct opinion as to the stage and progress of labor, by the patient's Manners which are so very different during the Effulsive from what they were under the dilating pains.

The Uterus which up to this time seemed to work alone, & unaided, now calls in to her assistance the abdominal Muscles, and therefore as might be expected the pain becomes much greater and the bearing down, the great tenesmic power is carried to the greatest height.

The agitation of the poor sufferer now becomes very great, and sometimes

the functions of the intellect are most seriously interfered with.

Nor is this all, for the heat of the surface is much more marked, while the pulse is observed to range from 100 to 120 per minute. Nay more, the whole system is in the highest state of excitement; the pains are stronger and the intervals between them are shorter; occasionally however the pains are followed by a calm and quiet more perfect than in the first stage; sometimes indeed they are so complete that ^{the} woman worn out as she is with pain and fatigue, falls into a refreshing sleep, which should be respected, as she soon awakes again, being aroused by a pain more severe than any of those which have preceded it.

The inferior part of the membranes now engage in the uterine orifice and the contractions cause the Liquor Amnii to flow down to that depending part; and repeated contractions render it projecting and tense, until it is eventually ruptured, and the contained waters escape with greater or less rapidity according to the circumstances in every particular case.

And now propelled by the same contraction the fetus is instantly applied to the os Uteri, and if the Head be the presenting part, it entirely closes up the opening for the time; and the name given to its position now, is "the crowning".

The above named discharge of the waters now suspends the contractions

of the uterus for a few moments, and the parts being relaxed thereby a small quantity more of the waters escape; but the pains now return again and become more energetic until the head is expelled from the uterus into the vagina.

This passage of the head into the vagina gives the patient such intense pain as frequently to cause her to cry out most piteously and despairingly.

And it is also observed that by the passage of the head into the vagina, it, the vagina, becomes widened and elongated, all its transverse folds or Ridges are effaced.

At this stage, many times the pain is introduced by shivering and the suffering patient clings to anything which she can

grasp, presses her feet against the bed with all her force, fills her lungs to their greatest capacity, contracts all her muscles, and exerts herself to the utmost to expel the child, and its being so powerfully pressed comes into contact with the pelvic floor and causes it to protrude greatly at every pain;

And thus pain after pain ensues until the fearfully distended and resistant perineum can resist no longer, all the parts become more and more distended until A most frightful pain causes the head to escape from the vulva, which passage sometimes forces loud and heart rending cries from the poor sufferer.

Sometimes it is found that the same pain effects the body also, but more

commonly A few Moments Elapse,
after- which the pains are renewed
and after one or two more the body
is completely ejected from the parts
of the Mother, the delivery completed,
and the second stage of labor is terminated;
which many times has proven most Exhaust-
ing to the woman, and leaves her for the
time being quite worn out.

A rest of both body and mind, most Sweet
and refreshing, now succeeds for A few
minutes, and then the contractions
are renewed, which throw off and
Expel the Placenta and Membranes.

The attachment of the Placenta is
so frail that the simple contractions
of the Uterus, i.e. its decrease in size
is sufficient to cause it to drop off
from its attachments, and then it is

expelled first from the uterus and then from the vagina.

But although there is usually a prompt delivery of the secundines, such is not always the case. In some cases, the uterus is slow to contract, and as it is by the contractions that the placenta is detached from the walls of the uterus, it follows that the slowness of the womb to commence its return to its normal state will be the cause of the detention of the placenta.

In such a case, A kneading of the uterus by laying the hand on the abdomen, or the application of cold cloths to the abdomen and thighs may stimulate it to action, but if these and other simple means fail to accomplish the desired end, A dose of the wine of Ergot will in all probability

more successful, the uterus will contract and the placenta be delivered.

But there are cases in which adhesions are formed between the placenta and the uterus, and these may be of greater or less extent and tenacity, and may call for active measures to remove it, by breaking up the adhesions and extracting the contents of the uterus. But cases have been known in which days have elapsed before all the parts have been removed. But whenever it is in any way practicable this should be avoided, for it is a most dangerous thing to leave anything in the uterus. When the uterus has thus been fully emptied, the third stage of labor is ended and with this the

Period of Labor is closed.

Now when Labor progresses thus in regular order the Physician has little to

do but to guide nature in its operations, that it be not molested by officious persons, to the detriment, it may be, to both Mother and child, and also to sustain the strength of the patient, and cheer her to the utmost in this hour of Nature's toil.

But as has been said labor does not always progress in this regular order, for difficulties and complications may occur in any of its stages, requiring the most prompt, energetic and assiduous interference of the Physician.

Sometimes it is very much retarded by the cessation or irregularity of the pains. And this may arise from various causes. This condition may arise from disagreeable impressions, the presence of disagreeable persons, or from disagreeable odors, all of which have been known to act so as

as to retard very greatly the progress of labor, even for hours, and strange as it may seem, if these are at once removed; the labor will progress in regular order

Or it may depend upon constitutional weakness, or upon exhaustion by previous hemorrhages. In this case it is affirmed that a few doses of Secale Cornutum will in all probability restore the contractions. Puls. is also suitable if while the pains do exist they do not appear to advance the labor

If the pains should cease suddenly from fright or some other powerful emotion, with congestion of the head, red face and a comatose condition, then Opium would be a most valuable remedy

Fainting also may occur and this

is a very troublesome and dangerous complication, especially if it occur frequently, a heart clot may form and cause instant death; This condition may require Nuxt. Ignatia, Acon. or Veratrum?

Few accidents can be more alarming than convulsions, and these are most likely to occur in nervous, sensitive persons who are always easily excited or alarmed.

If they should become complicated with loss of consciousness they are eminently dangerous.

For such persons kind words, cheering and encouraging advice will do a great deal, by filling them with hope and assurance. And when it is found necessary to give medicine we may give Acon. Bell. Cast. Cham. Ignat. Opium, of course according to the whole group of symptoms.

Haemorrhage may occur. The cause of this should be ascertained as speedily as possible and the suitable remedies applied.

If it be external it may be easily known but if it be internal it may attain to a fearful height before it is known to exist, and possibly the first intimation of its existence may be fainting; or possibly, the patient may experience a great tension, or enlargement in the uterine region, and speak of a peculiar sensation in the head; this will be most significant, and will admonish us to lower her head, to empty the uterus and to administer without delay, Ergot, Arnica, Ergiron or Puls. And whatever may be dictated by the peculiar circumstances of the case should be promptly attended to, keeping in mind the facts

that the indications to be fulfilled are
the emptying of the uterus and the securing
its contraction; and we shall thereby close
the gaping orifices in its surface out
of which is streaming the woman's life
blood, and thereby be the instrument of
saving a fellow mortal from premature
death - which success, will be a most
rich reward for the time and labor
expended to acquire the knowledge and
ability thus to help and save a fellow
mortal in such circumstance of
eminent danger -

When Labor has thus closed, a little time
should be allowed for the patient to rest,
according to her condition, after which her
soiled garments should be changed for
clean ones, well aired and warmed ~~on~~,
the bandage well applied and she

should be very gently placed in her bed and be left to get a little repose.

As regards the child, the cord should be severed at about $2\frac{1}{2}$ inches from the umbilicus, after taking care to examine the cord to see that there is not contained within it a loop of intestines. It should then be examined to see that there are no malformations, and when it is washed and dressed, the cord having been carefully protected, if it ^{be} put to the breast early it will be much better both for mother and child.

For the child, as the colostrum is best adapted to act on the bowels and bring away the meconium, and for the mother by lessening the danger of fever, when the milk begins to flow rapidly. Cases thus managed usually do well to the great satisfaction.

of all the parties concerned, and greatly
to the credit of the attending Physician.

Scarlatina.

Respectfully submitted to the Faculty of the

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- 1861 -